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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/598,308	08/14/2008	Walter Ruetten	DE 040066	2581

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS
P.O. BOX 3001
BRIARCLIFF MANOR, NY 10510

EXAMINER

BOOSALIS, FANI POLYZOS

ART UNIT	PAPER NUMBER
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2884

MAIL DATE	DELIVERY MODE
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02/23/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.		Applicant(s)	
	10/598,308		RUETTEN ET AL.	
	Examiner		Art Unit	
	Faye Boosalis		2884	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 June 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/12/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claim 12 is objected to because of the following informalities: The term "like" should be amended to read "such as". Appropriate correction is required.

Specification

2. The abstract of the disclosure does not commence on a separate sheet in accordance with 37 CFR 1.52(b)(4). A new abstract of the disclosure is required and must be presented on a separate sheet, apart from any other text.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 11 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Albagli et al (US 6,031,234 A).

Regarding claims 11 and 13, Albagli discloses an x-ray detector (i.e. solid state radiation imager) (100) with an array of sensor elements (i.e. photosensor array) (110) for the spatially resolved detection of optical photons and with a scintillator (150) arranged adjacent to the array (See Fig. 2), wherein the scintillator (150) comprises: a scintillation layer (i.e. scintillation material such as; cesium iodide or the like) for the conversion of x-rays into optical photons (Fig. 2 and col. 2, lines 44-59) and means (i.e. optical screen layer) (300) for changing the degree (i.e. index of refraction) to which

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optical photons are reflected back into the scintillation layer on at least a part of the surface of the scintillation layer (col. 6, lines 48-col. 7, line 6).

Regarding claim 12, Albagli discloses a method for spatially resolved detection of x-rays, comprising: (a) conversion of x-rays into optical photons in a scintillation layer (150); (b) detection of photons out of the scintillation layer (150) that reach a photosensitive detector (122); (c) reflecting photons back into the scintillation layer that would not reach the detector (122); (d) adapting the reflectivity in step (c) according to given criteria like the desired sensitivity, spatial resolution and/or dynamic range of the method (col. 2, lines 44-col. 3, line 3 and col. 3, lines 17-30).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Albagli et al (US 6,031,234 A) in view of Rogers et al (US 5,349,191 A).

Regarding claim 1, Albagli discloses a scintillator (150) for an x-ray detector (100), comprising: a scintillation layer (i.e. scintillation material such as; cesium iodide or the like) for the conversion of x-rays into optical photons (Fig. 2 and col. 2, lines 44-59); a reflector (reflecting layer) (240) disposed near at least one surface of the scintillation layer (160) for reflecting optical photons back into the scintillation layer (200), wherein the reflectivity of the reflector can be altered (i.e. adjustment of optical transmittance

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and adjustment in fabrication to provide desired tuning effect) (col. 5, lines 48-col. 6, lines 17). Albagli et al is silent with regards to a control device for selectively altering reflectivity. Rogers et al discloses a control device for selectively altering reflectivity of reflectors (i.e. control the fraction of photons actually received by the photodetectors) (col. 12, lines 51-col. 13, line 8). Thus it would have been obvious to modify Albagli et al to use a control device, as disclosed supra by Rogers et al. so as to enable means of improving image resolution.

Regarding claims 2-4, Rogers discloses the scintillator is characterized in that the reflector and control device are adapted to alter the reflectivity locally different and gradually by discontinuous change of reflectivity on high resolution (col. 12, lines 27-50).

Regarding claims 5-8, Although Albagli discloses that the reflector comprises a single planar electrode arrangement it would have been obvious to one having ordinary skill in the art at the time the invention was made to comprise two planar electrodes, since it has been held that the mere duplication of the essential working parts of a device involves only routine skill in the art. In re Harza, 274 F.2d 6669, 124 USPQ 378 (CCPA 1960).

7. Claims 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Albagli et al (US 6,031,234 A) in view of Rogers et al (US 5,349,191 A), as applied to claim 1 above, and further in view of Kindem et al (US 2005/0104000 A1).

Regarding claim 9, Albagli et al and Rogers et al disclose all of the limitations of the parent claim 1, as describe above. However, Albagli et al and Rogers et al are silent with regards to the reflector comprising a container. Kindem et al discloses the

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reflector comprises a container (cast-in-place reflectors) that may selectively be filled with substances of different reflection properties and/or absorption properties (i.e. reflective paste, reflective gel, reflective solid, or another form of reflective material) (paragraph [0014]). Thus it would have been obvious to a person having ordinary skill in the art to modify Albagli et al and Rogers et al to use a container, as disclosed supra by Kindem so as to enable means of controlling reflective behavior from various substances (i.e. chemical).

Regarding claim 10, Kindem discloses the reflector comprises a substance that alters its reflection properties and/or absorption properties in response to chemical and/or electrochemical influence (paragraph [0014]).

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Faye Boosalis whose telephone number is 571-272-2447. The examiner can normally be reached on Monday thru Friday from 7:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Porta can be reached on 571-272-2444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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9. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/FB/

/David P. Porta/

Supervisory Patent Examiner, Art Unit 2884